

REMARKS

The Office Action in the above-identified application has been carefully considered and this amendment has been presented to place this application in condition for allowance.

Accordingly, reexamination and reconsideration of this application are respectfully requested.

Claims 1–9 and 10–19 are in the present application. It is submitted that these claims are patentably distinct over the prior art cited by the Examiner, and that these claims are in full compliance with the requirements of 35 U.S.C. § 112. No changes have been made to the claims.

Applicant acknowledges with appreciation the indication by the Examiner that claims 2-7 and 12-17 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant has decided not to amend these claims at this time.

Claims 1, 8, 9, 11, 18, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shibuya et al. (U.S. Patent 6,490,010) in view of White (U.S. Patent 6,439,243). Applicant does not share the Examiner's interpretation of the teachings of Shibuya and White and consequently respectfully requests that the Examiner reconsider his opinion on the patentability of the claims presently on file vis-à-vis these references in view of the following.

In item 1 of the Office Action, it is noted that the Examiner has found Applicant's arguments of January 5th to be persuasive. In the final two paragraphs on page 8 of said arguments, Applicant elucidated why it is inappropriate to interpret either of circuits 57 or 58 as

being suitable for either detecting or generating a phase difference signal as in the present invention, in particular as recited in claims 1 and 11. Nonetheless, in contradiction with the stated persuasiveness of Applicant's arguments, the Examiner again argues in the present Office Action that block 57 in Figure 12 of Shibuya constitutes a first phase error detecting means in accordance with the language of claims 1 and 11. For the reasons set forth in the aforementioned final two paragraphs on page 8 of Applicant's arguments of January 5, 2004, Applicant continues to disagree with this interpretation of Shibuya and respectfully requests the Examiner reconsider his opinion in this respect.

Applicant also disagrees with the Examiner's interpretation of the teachings of White. As interpreted by the Examiner, White discloses the use of the polarity (sign) of the frequency error. From this, the Examiner concludes that it would have been obvious to combine Shibuya and White to provide the use of the polarity (sign) of the frequency error for improving the accuracy of the phase detection process. However, White does not teach use of the polarity of the frequency error. Instead, White (cf. Column 2, Lines 14-17) teaches that "the phase error produced by the communication channel is modulated by the relative sign of the symbols in a symbol sequence without regard to the phase error caused by the channel." From this teaching, White concludes that (emphasis added) "a need exists in the art for a phase detector that uses symbol sign information to improve the accuracy of the phase detection process." For fulfilling this need, White (Column 6, Lines 35-44) teaches means for producing (emphasis added) a "sign change signal that indicates a sign change between the current symbol and the previous symbol" as well as means that use a "delayed sign change signal and the sign change signal to produce [a] phase error gating signal."

In view of this unambiguous failure of Shibuya and White to teach or suggest the respective features of the invention discussed above, Applicant has full confidence in the non-obviousness of the subject matter of independent claims 1 and 11 as well as, by virtue of their respective dependency from said claims, dependent claims 2-9 and 12-19. The Examiner is kindly requested to reflect this opinion in their next office action.

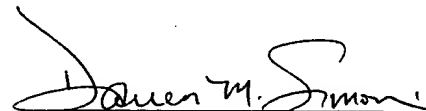
In view of the foregoing amendment and remarks, it is respectfully submitted that the application as now presented is in condition for allowance. Early and favorable reconsideration of the application are respectfully requested.

No additional fees are deemed to be required for the filing of this amendment, but if such are, the Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

If any issues remain, or if the Examiner has any further suggestions, he/she is invited to call the undersigned at the telephone number provided below. The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,
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